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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,975	04/12/2004	Willy Steve Ziminsky	839-1493	3085

30024 7590 05/25/2006

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EXAMINER

CASAREGOLA, LOUIS J

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/821,975

Applicant(s)

ZIMINSKY ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 8-18, 24-26 is/are rejected.
- 7) ☒ Claim(s) 3, 5-7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Restriction Requirement

Restriction to one of the following inventions is required under 35 USC 121:

- I. Claims 1-18 and 24-26 drawn to a gas turbine combustor classified in Class 60, subclass 747, and
- II. Claims 19-23 drawn to a method of operating a gas turbine combustor classified in Class 60, subclass 776.

The inventions of Groups I and II above are distinct because the apparatus of Group I could be operated according to a method materially different than that of Group II. The claimed method includes steps "a" to "d" which require the use of rich and lean fuel mixtures in the respective center and outer fuel nozzles. The claimed apparatus however includes no structure that is actually capable of controlling fuel mixtures, and the various references to rich and lean mixtures in the apparatus claims merely set forth intended use. The claimed apparatus, moreover, could still be made to function without meeting all the operating requirements of the claimed method. The apparatus could, for example, be operated without using a mixture so lean as to be insufficient for ignition as specified in method step "b".

Because these inventions are distinct for the reasons given above and require separate classification and/or divergent fields of search, restriction for examination purposes as indicated is proper.

On 5/15/06, applicants' attorney, Mr. Jeffry Nelson, elected the invention of Group I. The election was made without traverse. An action on the merits of elected claims 1-18 and 24-26 is presented below, and non-elected claims 19-23 are withdrawn from further consideration.

Claim Rejections - 35 USC 112

Claims 4, 10-18 and 24-26 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 4 recites "a plurality of concentric tubes having outlet ends, and said ends form a bluff body". In the preferred embodiment of the invention as shown in Figure 6, however, bluff body 160 is formed on the end of solid cylinder 64 rather than on the ends of concentric tubes 56 and 58. This raises a question as to whether applicants are actually claiming the subject matter they consider to be their invention since the claim limitations appears to conflict with the disclosed structure.

Claim 10 and related dependent claims 11-18 recite "a fuel passage consisting of at least one gaseous fuel passage" (claim 10, lines 7-8). This language is considered indefinite since it appear to include a contradiction. The expression "consisting of" is

normally interpreted as limiting a claim to only that specific element or specific group of elements recited after the expression. In this case, however, the language recited after the expression, i.e. "at least one gaseous fuel passage", is open ended and indicates that further elements may or may not be present. Such language when combined with "consisting of" is indefinite as to scope.

Claim 24 and related dependent claims 25-26 recite several means-plus- function limitations including "fuel means for supplying the center fuel nozzle with a fuel-rich mixture of gaseous fuel and air and fueling the outer fuel nozzles with a fuel-lean mixture of fuel and air" (claim 24, lines 6-9), and "fuel staging means for staging fuel to the outer nozzles by increasing a fuel ratio of the fuel lean mixture" (claim 24, lines 17-19). The claimed "means" in this case are considered indefinite since it is not clear how they correspond to the disclosed embodiment of the invention. The disclosed apparatus includes various combustor and fuel nozzle components, but it not seen which if any of these components actually serve to adjust the fuel mixtures for the center and outer nozzles so as to perform the specific control functions associated with claimed "means".

Claim Rejections - 35 USC 102

Claims 1, 2, 8 and 9 are rejected under 35 USC 102(b) as being anticipated by Ishiguro et al.

The claimed combustor structure is all present in prior art combustors of the type disclosed by Ishiguro. Attention is called to Ishiguro's Figure 4; note annular array of outer fuel nozzles 1 and center fuel nozzle 3, the center nozzle being substantially smaller than the outer nozzles. Note also that claimed reference to a premix operating mode with the center nozzle receiving a rich mixture (claim 1, lines 7-10) merely describes an intended use. If the structure broadly recited in the present claims is cable of being used in this manner, than the equivalent prior art structure can be presumed equally capable.

Allowable Subject Matter

Claims 3 and 5-7 contain allowable subject matter but are objected to as depending from a rejected parent claim. If rewritten in independent form, these claims will be allowed.

Additional References

Mandai et al and Vandervort al are cited as disclosing further pertinent

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examples of combustion systems having an annular array of outer fuel nozzles arranged about a center fuel nozzle.



L. J. Casaregola

571-272-4826 (M-F; 7:30-4:00)

571-273-8300 FAX

May 22, 2006

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).